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UNITED STATES DEPARTMENT OF AGRICULTURE
Bureau of Agricultural Economics

A Study of
FARM FAMILY LEVELS AND STANDARDS OF LIVING
IN THE PLAINS AND THE NORTHWEST

by

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FOREWORD

The findings presented in Research Monograph No. 1 showed that the standard of living to which farm families are accustomed greatly influences their choice of expenditures at any given moment; that they begin to save only after they have paid for that level of living and will go into debt to maintain their accustomed level of living expenditures. Their accustomed level of living is therefore the base from which they automatically start when moving into a new settlement area. What they will desire, and demand, and the sorts of choices they will make among alternatives can be predicted with a fairly high degree of surety. Such prediction is an item of great importance not only in planning but in the administration of a settlement or resettlement project.

Research Monograph No. 2 presents findings which go beyond this and sets forth the types of consumption goods and services, which prospective settlers are likely to rank high among their demands, the types of goods and services which they will sacrifice with the least protest, and those which they are unwilling to sacrifice under any circumstances.

That it is highly desirable to foresee these "imperatives" of prospective settlers has been proven by findings of studies other than those reported in Research Monographs No. 1 or No. 2. Because of the advent of the war the results of field studies of some 10 new settlement projects were never completed. Their findings will be briefly summarized here because they give pertinence to the issues with which this monograph deals. In broad terms the findings were:

(1) Families on new settlement projects insisted on retaining in their level of living those goods, services and consumption habits to which they had long been accustomed,

(2) They complained about being supplied goods and services different from those to which they were accustomed or which were not regarded as necessities by the average family in their new place of residence even though such goods and services were superior to those which they had previously enjoyed.

(3) They objected to having an overhead administration design and direct the rank and order of items by means of which their level of living was to be improved.

(4) In many instances they objected to assuming a burden of debt for improved items in their level of living when the acquisition of such items was not the result of their own free choices.

(5) Level of living items for each individual family competed not only with farm operation expenditures but also with each other in the final disposition of the family income; the items were variously ranked in order of preference by different families. The order of preferences frequently differed from that prescribed by the planners and administrators of the project.

(6) As a result of these experiences bad morale developed on some projects even in the face of superior goods and services provided at lower costs than would have been the case had they been obtained without the assistance of the administration of the projects.

A careful study of these research findings on the pattern of family living expenditures or the consumption pattern, and the order and rank of choices among the various items in the level of living, should yield valuable information needed for level of living planning and the administration of the Columbia Basin project.

CARL C. TAYLOR

SUMMARY

The objective of the analysis reported in this study is to predict what types of goods and services settlers in the Columbia Basin will demand and desire. The data used consist of the level of living expenditures of 948 farm families in areas adjacent to Columbia Basin and of 1,088 farm families in areas from which there has been marked migration in the past to the Northwest.

It was determined in this analysis that goods and services would be grouped by the expenditure behavior of the families themselves into what are referred to in this study as "cultural necessities", "cultural luxuries", "cultural rarities", and "cultural substitutes".

Items which, from the behavior of actual expenditures, proved to be "cultural necessities", that is, items regarded as more or less indispensable by low income as well as high income families in both areas, were: (a) food canning, (b) washing machines, (c) beauty parlor services, (d) barber shop services, (e) physician services, (f) automobiles, (g) radios, (h) reading matter, (i) recreation, (j) motion pictures, and (k) tobacco.

Items in both areas which proved to be "cultural luxuries"—those used mostly by families with above average incomes but probably desired by those in less favorable circumstances—were: (a) running water, (b) telephone, (c) dentist, and (d) life insurance.

Those which proved to be "cultural rarities" in both areas, so designated because they were reported by relatively few families in either the low or high income classes, were: (a) central heating, (b) electric sewing machines, (c) ironing machines, (d) household help, and (e) contributions to philanthropic and civic organizations.

The expenditure behavior of the families in both areas did not show any items classed as "cultural substitutes"---items which families with limited means must be content with but which are not desired or used by families whose means are adequate. There were three items, electricity, kitchen sink with a drain and flush toilets which proved to be "cultural necessities" in the Northwest but were classed as "cultural rarities or luxuries" in the area from which migration may be expected. Thus, migrants to the Columbia Basin may be expected to aspire to attain these three items rather than demand them.

In making this study 27 items were selected to illustrate the level and standard of living in the Plains and the Northwest. For detailed analysis these items are grouped in the following five major expenditure categories:

1. Housing, household operations and household furnishings: Since household use of electricity plays such an important role in the Northwest, it appears likely that migrants to a similar area such as Columbia Basin may be expected to want it also, even though previously they have not had it. The influence of electricity is apparent in a more widespread usage of other items, such as motor driven washing machines, refrigerators, vacuum cleaners, and electric irons. The motor driven washing machine for instance ranks highest among the household facilities and conveniences and is regarded as pretty much of a cultural necessity.

There is a direct relationship between the possession of running water piped to the house and income in both areas studied. However, it is more prevalent in the Northwest where availability of electricity is more universal than in the Plains.

2. Services: Three out of the five service items, physicians, beauty parlor and barber shops, are regarded as cultural necessities in both areas. Aside from income, lack of educational guidance as to the importance of dental care may have led to its being regarded as a cultural luxury rather than a necessity. Expenditures for household help are a definite cultural rarity in the cultures of both areas. This is as might be expected since it is an item generally more characteristic of urban than of rural areas.

3. Isolation reducing agents: Automobiles, radios and reading matter are regarded as cultural necessities in both areas. The telephone does not rank so high. Higher percentages of families in the Plains, where families are more sparsely settled than in the Northwest, reported expenditures for new cars and for telephones than was true in the Northwest.

4. Social participation: Recreation ranks highest among the social participation items and it is regarded as a cultural necessity in both areas.

Expenditures for religious purposes were regarded as a cultural necessity in the Plains but as a cultural luxury in the Northwest. It is noteworthy that the percentage of low income families having expenditures for all items in the social participation category in the Northwest was consistently lower than for this group of families in the Plains. Items in this category in the Northwest rank low in competition with other categories such as housing, household operation and household furnishings.

The influence of income is apparent in expenditures for schooling which is regarded as a cultural luxury in both areas.

Miscellaneous: There is no apparent relationship between income and expenditures for canning food; in other words, this item is a cultural necessity. The same is true, though to not so marked a degree, regarding expenditures for tobacco. In contrast, the influence of income is quite apparent in expenditures for life insurance premiums, bank charges, and safety deposit boxes, which are regarded as cultural luxuries in both areas.

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A Study of Farm Family Levels and Standards of Living in The Plains and the Northwest

I. INTRODUCTION

This analysis is based on data from the Consumer Purchases Study conducted in 1935 and 1936 by the Bureau of Home Economics, U. S. Department of Agriculture, in cooperation with the Work Projects Administration.

The data used consist of two samples or analysis units of the Consumer Purchases Study: (1) A group of native born, nonrelief farm families in Western Oregon and Washington selected as representative of small full-time farms including dairy, poultry, fruit, and general farms; (2) A group of native born, nonrelief farm families from the more sparsely settled sections of North Dakota and Kansas, where wheat is the predominant type of farm enterprise.

These two groups were selected on the basis of their relevance to prospective settlement in the Columbia Basin: the Oregon and Washington farms because they correspond most closely, among available data, to the environment and type of farming anticipated for farm families settling in the Columbia Basin; farms from North Dakota and Kansas were chosen because it was believed they would be fairly representative of areas from which migration to the Columbia Basin might be expected.

II. METHODOLOGY

A type of scatter diagram previously developed to analyze regional variations in levels and standards of living is here used to show comparisons between the two areas. ^{1/} In the scatter diagram, the relationship between the proportion of low and high income families reporting expenditure

^{1/} This methodological statement is adapted from "Some Regional Variations in Levels and Standards of Living" by Edgar A. Schaler, Rural Sociology Vol. 9, No. 2, June, 1944, pp. 126-128.

for a particular item is shown by the location of an analysis unit symbol on the chart. The percentage of low income families reporting expenditures for an item is plotted on the horizontal axis ranging from zero at the left to 100 at the right, whereas the percentage of high income families reporting expenditures for an item is plotted on the vertical axis ranging from zero at the bottom to 100 at the top.

Thus, if both low and high income families in the analysis unit have high proportions reporting expenditures the symbol is located toward the upper right-hand corner of the chart, indicating that the item is regarded as more or less indispensable and therefore may be termed a "cultural necessity".

If the item is reported by a large proportion of high income families, and but few low income families, the symbol is located toward the upper left-hand corner of the chart. Such an item may be termed a "luxury" and is assumed to show a substantial positive correlation with income. If the item is reported by relatively few families both in the low and the high income classes, the symbol falls in the lower left-hand corner of the chart, and may be termed a cultural "rarity". Such an item may be either a novelty, or a trait which is foreign to the culture area under study. At any rate it has little if any apparent or direct relationship to income. If the item is reported by few or no high income but by many low income families the symbol falls toward the lower right-hand corner of the chart. Such an item may be termed a cultural "substitute" since families with little means must be content with it, but it is not desired by families whose means are adequate.

By identifying the analysis units represented by the letter "P" for the Plains area and the letters "NW" for the Northwest area under study, one may determine quickly the role played by a particular item in the two regions being considered, and whether it shows the characteristics of a luxury or necessity, as here defined, or something else. Thus one can see at a glance the main configuration of the analysis unit symbols which clearly portrays the significant variation in the value systems. Divergence and similarity in the cultural role of the items presented are readily observable, and their meaning within the culture pattern of the sample areas is made clear.

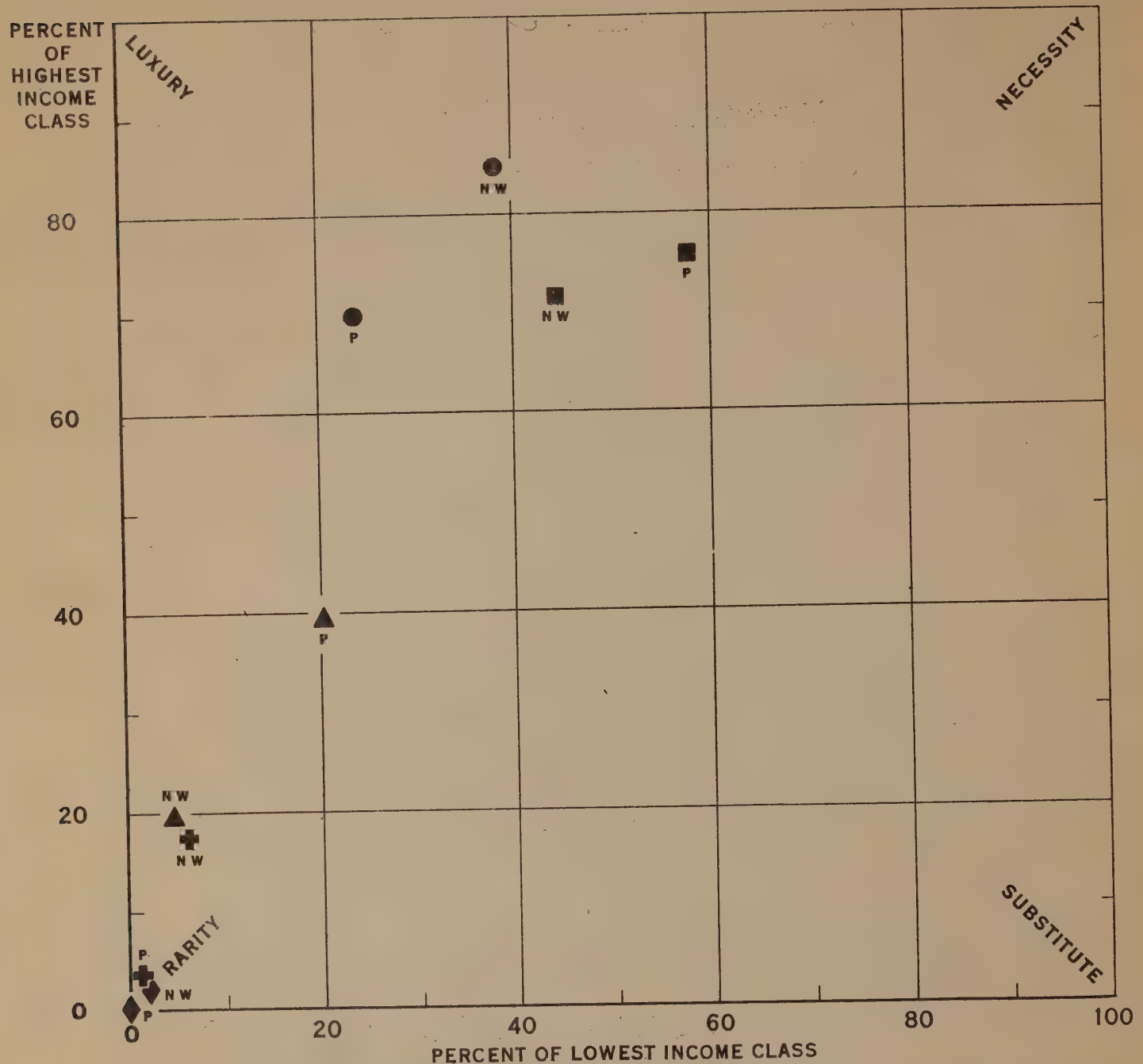
To illustrate the interpreting of data on the scatter diagram, let us take a new trait, for example, the radio. It will enter the culture of a particular analysis unit as a rarity; if it is rapidly adopted by the more prosperous, it may climb quickly up the chart in the direction of the luxury corner. If its use then becomes widespread throughout the entire range of income, possibly with the introduction of cheaper models, it will shift to the right toward the necessity corner. In the meantime, it is possible that less expensive substitutes are being adopted by the lower income classes. Scatter diagrams plotted at successive points in time should show clearly whether the item was tending to play a static role in the culture of the particular analysis unit, or whether its valuation was changing gradually as the result of advertising, mass production, the diffusion of knowledge about the item, and the like.

In terms of the outlined procedures for plotting expenditure behavior, items may be characterized as "perfect" or maximum rarities, luxuries, necessities, or substitutes as the analysis unit symbols approximate the limits of the chart in the respective directions. In similar fashion, if the symbols are located near the margin of the chart, but between two corners, an item may be termed a rarity-luxury, or a luxury-necessity, to indicate its mixed or hyphenated character in terms of the types represented by the corners of the chart.

It should be recognized, in using this technique for interpreting the cultural value meaning of expenditure data, that the plotting of an item as rarity, luxury, or necessity may be affected not only by the proportions reporting expenditures at low and high income levels but by such considerations as the absolute range of income (especially the upper limits), the geographic or climatic range of analysis units represented,

EXPENDITURES FOR HOUSING FACILITIES, HOUSEHOLD OPERATIONS, AND HOUSEHOLD FURNISHINGS, SHOWING REGIONAL VARIATIONS

RELATIONSHIP BETWEEN PERCENTAGES OF HIGHEST AND LOWEST INCOME CLASS



● Running water ▲ Central heating ■ Motor-driven washing machine
 + Electric sewing machine ♦ Ironing machine

P=PLAINS NW=NORTHWEST

BY ANALYSIS UNIT AND FAMILY INCOME CLASS CONTAINING 25 OR MORE FAMILIES

length of the time sample of expenditure behavior reported and the broadness of the consumption category represented.

III. EXPENDITURE CATEGORIES

A total of 27 items were selected to illustrate the level and standard of living in the Plains and the Northwest. These items were grouped in the following expenditure categories: Housing, household operations, and household furnishings; Services; Isolation reducing agents; Social participation; and Miscellaneous.

Level and Standard of Living Items Grouped according to Specified Expenditure Categories

Housing, household operations, and Household Furnishings

1. Electricity
2. Indoor flush toilet
3. Kitchen sink with drain
4. Mechanical refrigerator
5. Vacuum cleaner
6. Running water in kitchen and/or bath
7. Central heating
8. Motor driven washing machine
9. Electric sewing machine
10. Ironing machine

Services

1. Professional- (a) Physicians. (b) Dentist
2. Personal Care- (a) Beauty parlor. (b) Barber shop
3. Household help

Isolation reducing agents

1. (a) Automobile new when bought. (b) Owning automobiles
2. Radio
3. Telephone
4. Reading matter

Social Participation

1. Religious- Church, Sunday School and Missions
2. Educational- Schools
3. Recreational- General recreation and motion pictures
4. Philanthropic and Civic- Community Chest, Welfare and Civic Agencies

Miscellaneous

1. Security- (a) Life insurance premiums. (b) Bank charges and safe deposit boxes
2. Canning food
3. Tobacco

IV. REGIONAL VARIATIONS AND SIMILARITIES

In analyzing regional variations in the expenditure of income for various items in the two areas it may be well to keep in mind that, for the period studied, the average net income for families in all income groups in the Plains is approximately \$600 lower than the average net income for families in all income groups in the Northwest.

Another factor which may be of influence is the character of the economies in the two areas. In the Northwest a fairly stable year-to-year income has been achieved through diversification and emphasis on commodities with minimum price fluctuations from year to year. In contrast, experience has shown that incomes vary greatly from year to year in the Plains. Thus, the inability of farm families in the Plains to predict future income with any degree of accuracy may result in unjustifiable anticipations and consequently poorer adjustment to low income. Since the period covered in the data on which this study is based (1935-1936) were years of drought and low income in the Plains, the relatively poor adjustment to low incomes may result from the persistence of established standards of living even through a period of abnormally low income.

Significant regional variations occurred in only 6 out of the 27 items selected to analyze the level and standard of living. Five out of these 6 are found in the first general category to be presented, that is, Housing, Household Operations and Household Furnishings. The remaining item is found in the Social Participation category.

Twenty-two of the items show definite regional similarities. Although most of these items show some regional variations they are not great enough to cause them to be placed in different cultural classifications.*

* Note: Page 12 is omitted.

A. Housing, household operations and household furnishings

1. Regional variations

Electricity: The greatest extreme among the items showing substantial regional variations was found in the proportion of families having expenditures for electricity. (See Chart I, p.9) The percentage of families in the Plains having expenditures for electricity was extremely small regardless of income. The average percentage for all income classes was only 3, while that for low income families was 1, and for high income families 3. ¹/₂ In contrast the proportions of families having expenditures for electricity in the Northwest in both the low and high income groups was high enough to indicate readily the widespread use of electricity in this area. Here, 78 percent of the families in all income classes, 68 percent of the low income, and 94 percent of the high income families reported expenditures for this item. Thus, when the percentage of families having expenditures for electricity in the two areas are plotted on the scatter diagram, it becomes obvious immediately that although electricity is a cultural rarity in the Plains it is regarded as a cultural necessity in the Northwest.

Flush toilets: Although a flush toilet is not regarded as a cultural necessity in either the Plains or the Northwest, there are noticeable regional differences in the proportion of families having this item. Whereas only 9 percent of the low income families in the Plains were reported as having this item, the proportion for low income families in the Northwest was increased to 19 percent. The proportion of high income families in the Northwest reported as having a flush toilet more than doubled the proportion for the Plains—the percentage ranging from 27 in the Plains to

¹/₂ Rather than taking the lowest and highest income classes, regardless of the number of families involved, the arbitrary procedure was followed of using the figures for the lowest and highest income classes containing 25 or more families.

58 in the Northwest. Plotting of these percentages, as shown in Chart I, shows that although the flush toilet is regarded as a rarity in the Plains, it has been adopted to the extent that it is regarded as a luxury in the Northwest.

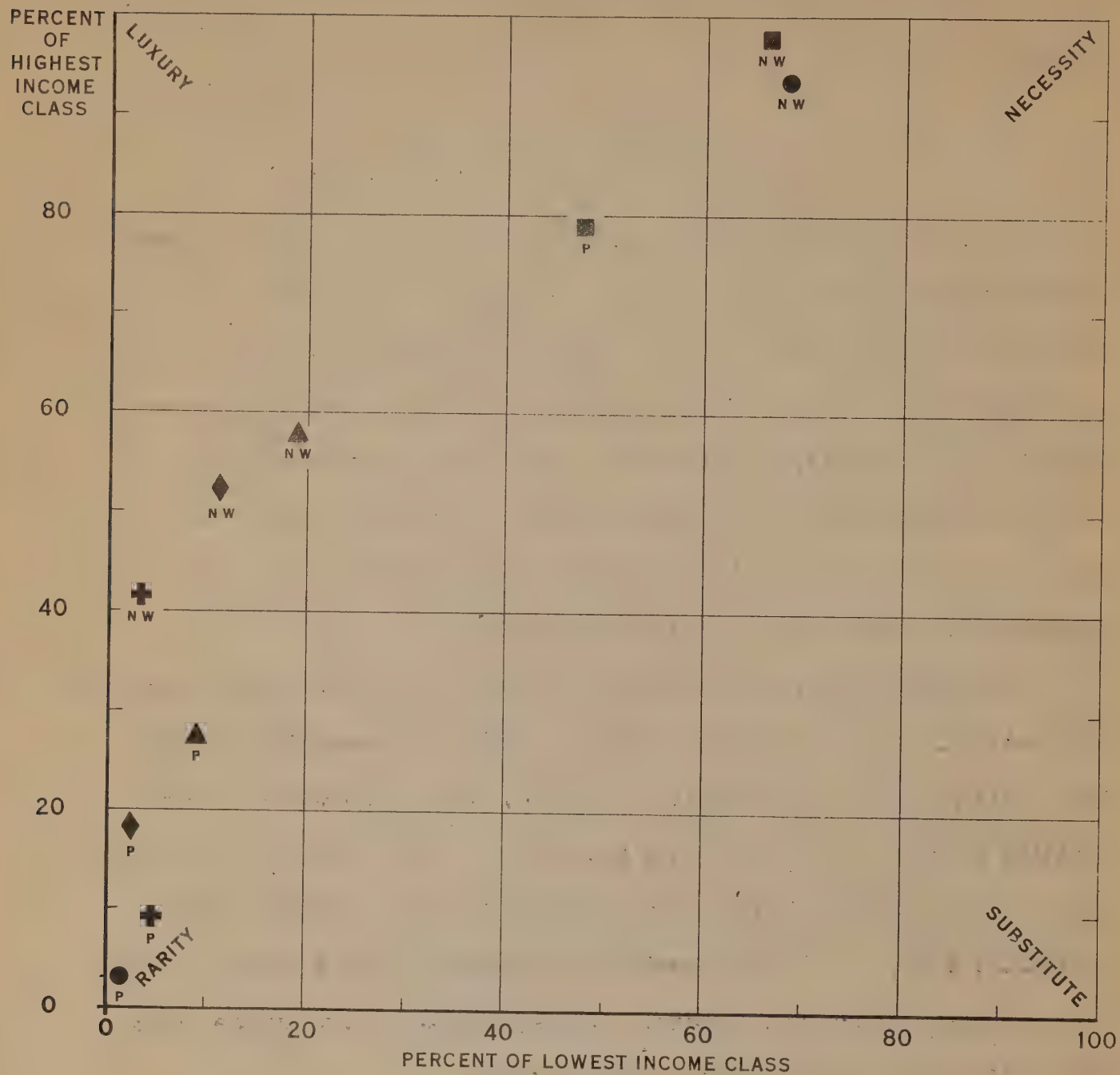
Kitchen sink with drain: The regional spread in regard to a kitchen sink with a drain was not so great, involving a range from a luxury-necessity in the Plains to a definite necessity in the Northwest. Nearly all of the high income families and approximately two-thirds of those in the low income group in the Northwest sample were reported as having a kitchen sink with a drain. In the Plains approximately three-fourths of the high income families and slightly less than one-half of the families in low income families were reported as having this item.

Refrigerator and Vacuum cleaner: The two other items in which regional variations occurred, were the refrigerator and the vacuum cleaner. These variations were only slight, ranging from a rarity for each of these two items in the Plains to a rarity-luxury in the Northwest.

Although refrigerators and vacuum cleaners are regarded clearly as a rarity among families in the Plains, the relationship between these items and income is sufficient to have them regarded as a rarity-luxury among families in the Northwest.

EXPENDITURES FOR HOUSING FACILITIES, HOUSEHOLD OPERATIONS, AND HOUSEHOLD FURNISHINGS, SHOWING REGIONAL VARIATIONS

RELATIONSHIP BETWEEN PERCENTAGES OF HIGHEST AND LOWEST INCOME CLASS



● Electricity ▲ Flush toilet ■ Kitchen sink with drain
 + Mech. refrigerator ◆ Vacuum cleaner

P=PLAINS NW=NORTHWEST

BY ANALYSIS UNIT AND FAMILY INCOME CLASS CONTAINING 25 OR MORE FAMILIES

2. Regional Similarities

Running water: The relationship between income and the percentage of families reported as having running water is noticeable in both the Plains and the Northwest. (See Chart II, ^{p. 25}) It is regarded as a luxury in each area. However, a tendency for the item to move from the luxury toward the necessity corner is more apparent in the Northwest than in the Plains. In the Northwest 38 percent of the low and 85 percent of the high income families were reported as having this item while the percentage for families in all income groups was 66. In the Plains 24 percent of the low income and 70 percent of the high income families had running water while only 26 percent of the families in all income groups were reported as having this item. The variations between the proportion of families having running water in the two areas may be influenced to some extent by the more widespread use of electricity in the Northwest area.

Central heating: Although the possession of a central heating system is a cultural rarity in both the Plains and the Northwest, its adoption has been a little more widespread in the Plains. Here, 20 percent of the families in all income groups were reported as having this item. The percentage of low income families was also 20 while that for high income families was 39. In the Northwest only 9 percent of the families in all income groups had central heating. The percentage for low income families was 5 and that for high income families was 20.

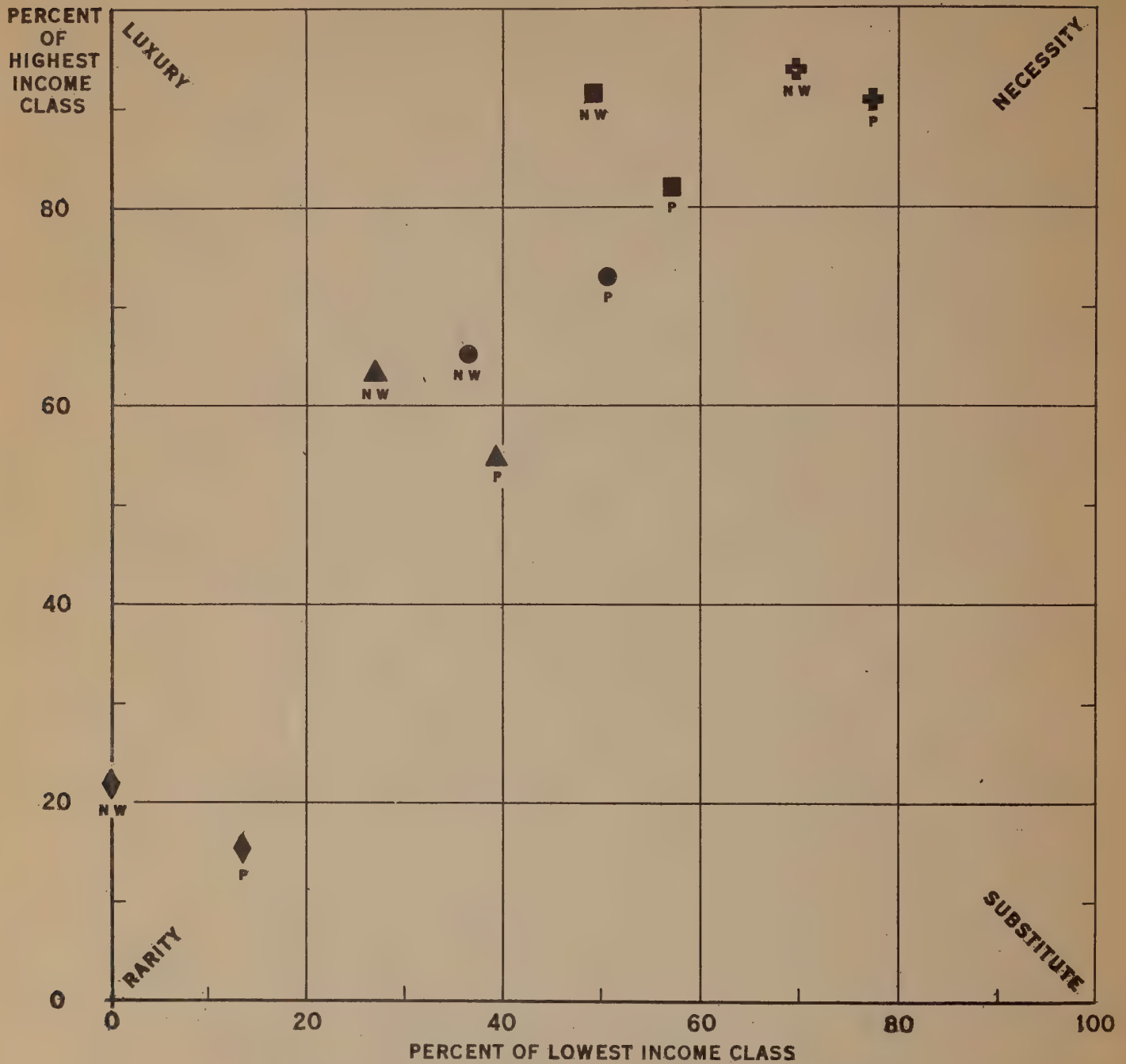
Motor driven washing machine: This item is recognized as a cultural necessity in both the Plains and the Northwest. The percentage of families owning this item varies only slightly in the two areas. In the Plains the

percentages are 56 for the low income and 76 for the high income families as compared with 44 for the low income and 72 for the high income families in the Northwest.

Electric sewing and ironing machines: These two items are clearly rarities in both regions. Only 1 percent of the low income and 3 percent of the high income families in the Plains were reported as having an electric sewing machine as compared with 6 percent of the low income and 17 percent of the high income families in the Northwest.

The proportion of families owning ironing machines varied between zero percent among both the low and high income families in the Plains and 2 percent among both the low and high income families in the Northwest. Of all the items considered, this appeared most rarely.

EXPENDITURES FOR SPECIFIED SERVICES RELATIONSHIP BETWEEN PERCENTAGES OF HIGHEST AND LOWEST INCOME CLASS



● Physicians ▲ Dentist ■ Beauty parlor
 + Barber shop ◆ Household help

P = PLAINS

NW = NORTHWEST

BY ANALYSIS UNIT AND FAMILY INCOME CLASS CONTAINING 25 OR MORE FAMILIES

B. Services

Physician: The services of a physician are regarded as a necessity in the Plains. But in the Northwest the influence of income is more apparent with the result that this item falls slightly nearer the luxury than the necessity corner. (See Chart III, p.18)

About one-half of the low income and approximately three-fourths of the high income families in the Plains reported expenditures for physicians as compared with a little more than one-third of the low income and approximately two-thirds of the high income families in the Northwest.

Expenditures for medical care tend to maintain a definite relationship to income in both areas. However, the spread in the average expenditures per family among low and high income families is considerably greater in the Northwest than in the Plains. The average expenditure per family for this service among high income families in the Northwest was \$40.65 as compared with \$7.68 among low income families. In the Plains the average expenditure per family for physicians services was \$23.03 for high income families and \$11.46 for low income families.

Dentist: In both the Plains and the Northwest the services of a dentist are regarded more nearly as a luxury than a necessity. In the Plains 39 percent of the low income as compared with 55 percent of the high income families reported expenditures for dentists' services. In the Northwest only 27 percent of the low income as compared with 63 percent of the high income families reported expenditures for this type of professional service.

Expenditures for dental services varied more consistently with income in the Northwest than in the Plains. In the Northwest the average expenditure per family in all income groups was \$10.69; for low-income families, \$2.43; and for high-income families, \$17.04. In the Plains the average expenditure for this service per family in all income groups, was \$7.87; for low income families, \$10.01, and for high income families, \$13.93.

Beauty parlor and barber shop: Personal care services appear to be a cultural necessity in the Plains as well as the Northwest. There is no substantial difference between the proportion of wives and husbands having expenditures for beauty parlor and barber shop services in the two regions. However, for other members of the family, these services were regarded as a luxury in both areas.

In the Plains, the percentage of families having expenditures for articles of personal care, such as toilet soap, dentifrice, cosmetics, toilet articles and shaving soap and cream, ranged from 99 percent for toilet soap to 54 percent for toilet articles among low income families and from 100 percent for toilet soap to 61 percent for toilet articles among the high income families. In the Northwest, percentages for these articles ranged from 97 percent for toilet soap to 33 percent for toilet articles among low income families and from 100 percent for toilet soap to 74 percent for toilet articles among the high income families.

The average amount expended per family for all toilet articles and preparations as well as services at beauty parlors and barber shops was higher among low income families in the Plains than among low income families in the Northwest. The reverse was true regarding families in the high income groups in the two areas. The average amount expended for

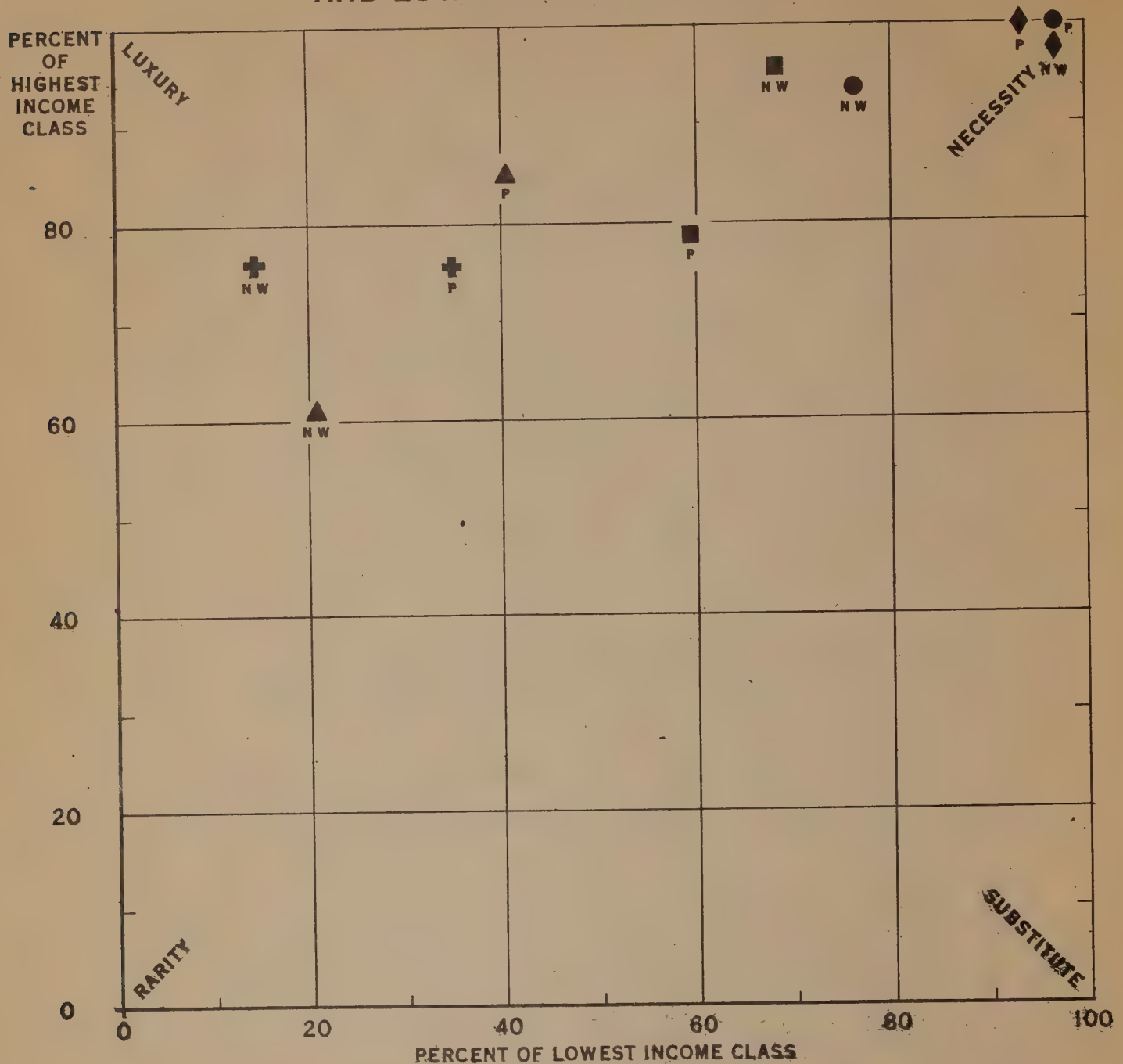
toilet articles and preparations by low income families in the Plains was \$5.45 and in the Northwest \$4.51 as compared with \$12.91 for high-income families in the Plains and \$13.48 for those in the Northwest.

The average amount expended by all members of low income families in the Plains for services at beauty parlors and barber shops was \$7.70, while the average for this group in the Northwest was \$5.13. The average amount spent per family in the high income group in the Plains was \$24.52 as compared with \$17.09 in the Northwest.

Household help: This item is clearly a cultural rarity in both the Plains and the Northwest. None of the low income and only 22 percent of the high income families in the Northwest reported expenditures for this item. In the Plains, 14 percent of the low income and 15 percent of the high income families reported expenditures for household help.

EXPENDITURES FOR ISOLATION REDUCING AGENTS

RELATIONSHIP BETWEEN PERCENTAGES OF HIGHEST AND LOWEST INCOME CLASS



● Automobiles ▲ New automobiles ■ Radio

✚ Telephone ◆ Reading matter

P=PLAINS

NW=NORTHWEST

BY ANALYSIS UNIT AND FAMILY INCOME CLASS CONTAINING 25 OR MORE FAMILIES

C. Isolation reducing agents

Automobiles: The ownership of automobiles is almost universal among families represented in both of our samples. (See Chart IV, ^{p. 22}) It functions as a cultural necessity in both regions. The differences between the proportions of low income and high income families owning automobiles is only slight in the Plains and moderate in the Northwest. However, the average amount of family income allotted to ownership and operation of a car varies with income. While there is no substantial difference between the Plains and the Northwest in the average amount expended by high income families for this item, there is considerable difference in the amount spent by low income families in the two areas. In the more sparsely settled Plains area the average amount spent by low income families was \$95 as compared with \$44 in the Northwest, and \$273 for high income families in the Plains as compared with \$228 in the Northwest.

Although the ownership of some kind of car is a cultural necessity, the purchase of a new car is definitely a cultural luxury in both regions. However, the frequency of new car ownership is greater in the Plains than in the Northwest. In the Plains 40 percent of the low income families as compared with 21 percent in the Northwest reported the purchase of a new car. The percentage of high income families purchasing this item was 85 percent in the Plains as compared with 61 percent in the Northwest.

Radio: Possession of radio is a cultural necessity in both of the two regions. Sixty percent of the low income and 79 percent of the high income families in the Plains reported ownership of a radio as compared with 60 percent of the low income and 96 percent of the high income families in the Northwest.

There was no substantial difference between the Plains and the Northwest in the amount of the expenditures per family for radios.

Telephone: In contrast with the other items classified as "isolation reducing agents," there is a noticeable relationship between the ownership of a telephone and income. The telephone is regarded as a luxury in both of the areas. Thirty-five percent of the low income and 76 percent of the high income families in the Plains as compared with 14 percent of the low income and 76 percent of the high income families in the Northwest reported ownership of a telephone.

Reading matter: The reporting of expenditures for reading matter was almost universal among the families represented in both samples. The possession of some type of reading matter was regarded clearly as a cultural necessity in both areas. But when the data are considered with respect to types of reading matter obtained, certain regional variations appear.

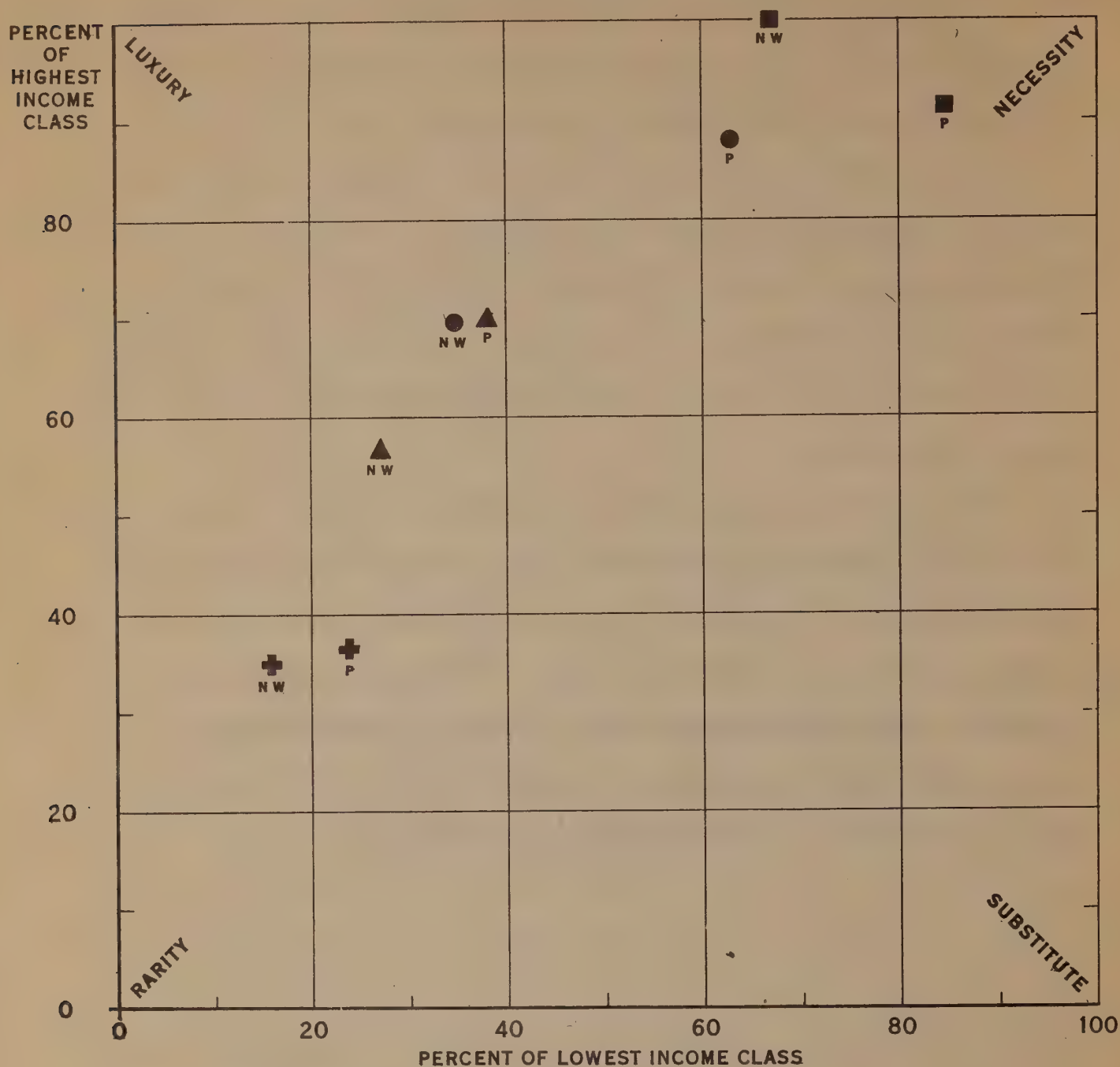
In the Plains, 91 percent of the low income and 97 percent of the high income families had expenditures for newspapers, daily and weekly. Seventy-eight percent of the low income and 94 percent of the high income families reported expenditures for a daily paper and 60 percent of the low income and 76 percent of the high income families reported expenditures for a weekly newspaper. Thus, in the Northwest, 37 percent of the low income and 96 percent of the high income families reported expenditures for a newspaper of some kind. Ninety-one percent of the low income and 96 percent of the high income families reported expenditures for a daily paper, but only 35 percent of the low income and 54 percent of the high income families reported expenditures for a weekly paper. A higher proportion of

While low income and high income families reported expenditures for a daily newspaper in the Northwest than in the Plains, but the proportion of families in each income group reporting expenditures for a weekly newspaper was lower in the Northwest than in the Plains.

A regional variation was also apparent in the proportion of families reporting expenditures for one or more magazines. Whereas 66 percent of the low income families, and 75 percent of the high income families, in the Plains reported expenditures for magazines, 46 percent of the low income and 80 percent of the high income families in the Northwest reported expenditures for this item.

Irrespective of income very few families in the Plains or the Northwest reported expenditures for books, either purchased or rented. Thus, the only significant regional variation in the proportion of families reporting expenditures for specified types of reading matter is found in the percentage reporting expenditures for a weekly newspaper and magazines. Whereas these items are regarded as a cultural necessity in the Plains, they are considered a cultural luxury in the Northwest.

EXPENDITURES FOR SOCIAL PARTICIPATION RELATIONSHIP BETWEEN PERCENTAGES OF HIGHEST AND LOWEST INCOME CLASS



● Religious ▲ Educational ■ Recreational

+ Philanthropic and civic

P=PLAINS

NW=NORTHWEST

BY ANALYSIS UNIT AND FAMILY INCOME CLASS CONTAINING 25 OR MORE FAMILIES

D. Social Participation

1. Regional Variations

Religious: Expenditures for religious contributions, that is, to the church, Sunday School and missions, were regarded as a cultural necessity in the Plains but as a cultural luxury in the Northwest. (See Chart 7 ^{p.26}) Sixty-three percent of the low income and 88 percent of the high income families in the Plains reported expenditures for this item. The proportions for families in the Northwest was only 35 percent for low income and 70 percent for the high income families.

There was a considerable difference between the Plains and the Northwest in the average amount expended annually for religious activities. The figure for low income families in the Plains was \$14 as compared with \$6 in the Northwest; for high income families the average was \$38 in the Plains as compared with \$21 in the Northwest.

2. Regional Similarities

Educational: There is no significant difference between the Plains and the Northwest in the proportion of families having expenditures for participation in educational activities. This type of item seems to be regarded as a cultural luxury in both regions. Thirty-eight percent of the low income families in the Plains as compared with 27 percent in the Northwest reported expenditures for this item, while 70 percent of the high income families in the Plains as compared with 57 percent in the Northwest had expenditures for schooling.

Families in the Plains sample spent slightly more for schooling than did families in the Northwest. The average amount expended by low income families was \$13 in the Plains as compared with \$5 in the Northwest. High income families in the Plains spent an average of \$50 while those in the Northwest spent \$42.

Recreational: Participation in recreational activities requiring some expenditures was definitely regarded as a necessity in both the Plains and the Northwest. On the basis of expenditures for all types of recreation, 84 percent of the low income and 91 percent of the high income families in the Plains reported expenditures for this item as compared with 67 percent of the low income and 100 percent of the high income families in the Northwest.

When expenditures for recreation are considered with respect to particular types of activities, a number of regional variations become apparent. For example, expenditures for any admissions to motion pictures were regarded as a necessity in the Plains but as a luxury in the Northwest. Likewise, admissions to motion pictures for persons 16 years or over were regarded as a necessity in the Plains but as a luxury in the Northwest. But for persons under 16 years expenditures for admissions to motion pictures were a rarity in the Plains and a necessity in the Northwest. This contrast is doubtless related to the greater dispersion of farm families in the Plains than in the sample communities of the Northwest.

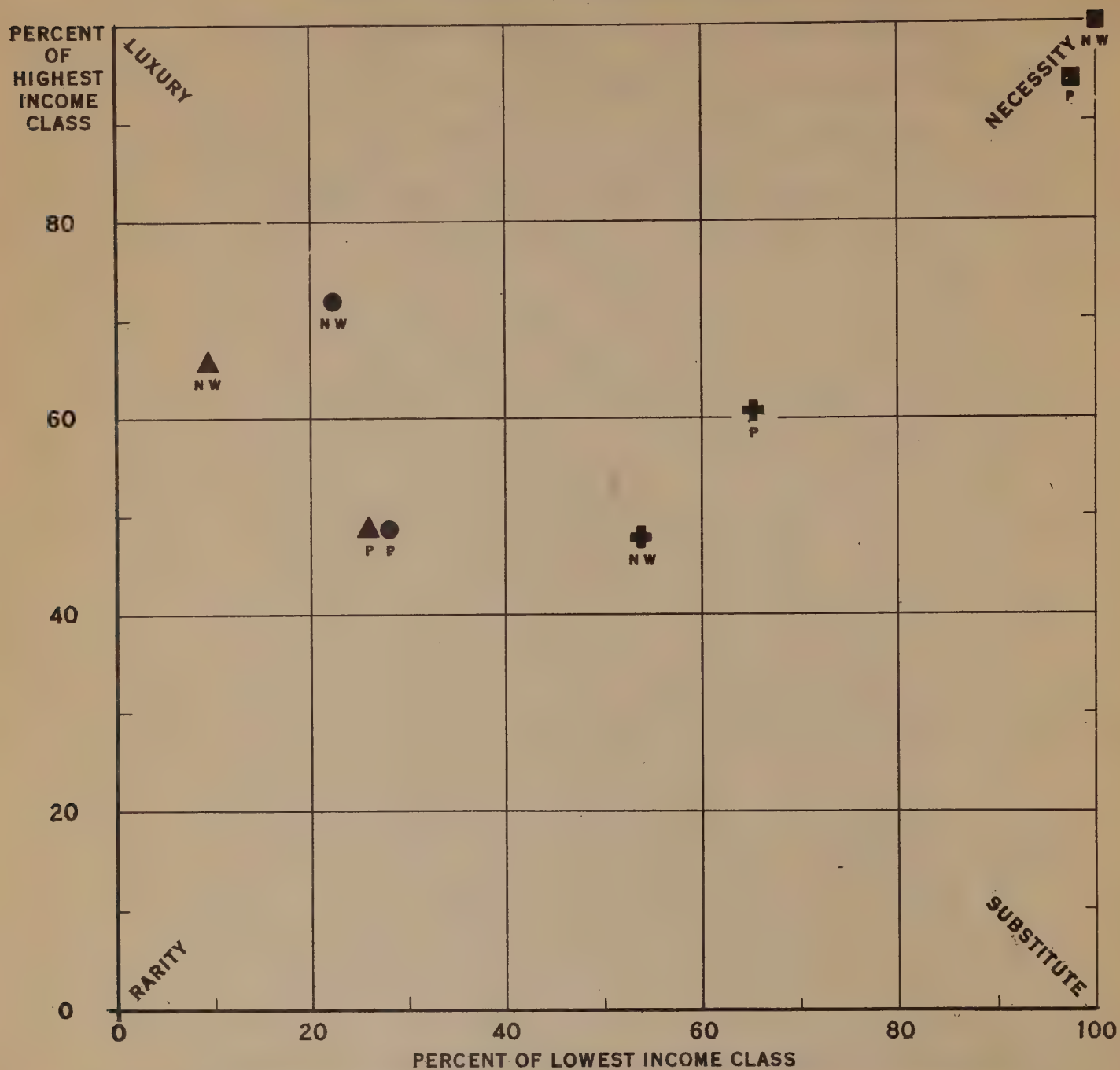
Another regional variation occurred in the proportion of families having expenditures for club dues. Expenditures for this item were regarded as a rarity among families in the Plains but as a luxury among families in the Northwest.

There was a considerable difference between the Plains and the Northwest in the amount of money spent by families for recreational activities. The average amount spent varied with income in each area. The average amount expended by low income families for this item in the Plains was \$17 as compared with \$7 by low income families in the Northwest. The average amount expended by high income families was \$66 in the Plains as compared with \$38 in the Northwest.

Philanthropic and Civic: Contributions by families to the Community Chest and similar philanthropic organizations were a rarity in both the Plains and the Northwest, and the average amount expended for this type of item in both areas was negligible. Furthermore, very few families in either area contributed cash toward the support of relatives.

EXPENDITURES FOR MISCELLANEOUS ITEMS

RELATIONSHIP BETWEEN PERCENTAGES OF HIGHEST AND LOWEST INCOME CLASS



● Life insurance premiums ▲ Bank charges and safe deposit boxes

■ Canning food + Tobacco

P=PLAINS

NW=NORTHWEST

BY ANALYSIS UNIT AND FAMILY INCOME CLASS CONTAINING 25 OR MORE FAMILIES

E. Miscellaneous

Life Insurance premiums: The holding of life insurance policies is regarded as a luxury in both the Plains and the Northwest. (See Chart VI, p. 33) However, there is some variation between the proportions of families reporting expenditures for this item in the different regions, particularly among high income families. In the Plains, 25 percent of the low income families as compared with 22 percent of the low income families in the Northwest reported expenditures for this item, whereas among the high income families the percentage was 49 in the Plains as compared with 72 in the Northwest.

Bank charges and safe deposit boxes: Only 10 percent of the low income families as compared with 65 percent of the high income families in the Northwest reported expenditures for bank charges and safe deposit boxes so they are clearly regarded as cultural luxuries in that region. Although the relationship of these items to income is also evident in the Plains, it is not so pronounced as in the Northwest. In the Plains 26 percent of the low income and 49 percent of the high income families reported expenditures for these items.

Canning food: There is no apparent relationship between income and the canning of food in the sample areas under consideration. Home canning of food is regarded as a necessity in both the Plains and the Northwest. In the Plains 98 percent of the low income and 94 percent of the high income families reported the canning of food and in the Northwest 100 percent of the families in each of these income groups reported the canning of food. Another indication of the reliance on home produced foods is shown in the value of this item. Regardless of income, in both the samples under study, the average value of food produced exceeds the average value of food purchased.

Tobacco: Large proportions of families in both the Plains and Northwest reported expenditures for tobacco. It is regarded as a cultural necessity in both regions. Sixty-five percent of the low income and 61 percent of the high income families in the Plains reported expenditures for this item as compared with 54 percent of the low income and 48 percent of the high income families in the Northwest. The average amount expended for tobacco by low income families in the Plains exceeded the amount spent by high income families, whereas in the Northwest the reverse was true. In the Northwest the average amount expended was \$6 for low income families and \$11 for high income families; whereas in the Plains the average was \$10 for low income families and \$12 for high income families.

Table 1. Percentage of families reporting expenditures for electricity, and average amounts spent, and percentage having specified housing items, by income class and analysis unit, 1935-36. ^{1/}

Analysis unit and family income class	Housing and Household Operations Items						
	Families	Electricity 2/ Percent: Ave. Amt. Exp.	Indoor 3/	Kitchen 3/	Running 3/	water in	Central 4/
			flush toilet	sink with drain	kitchen	and/or bath:	heating furnace
(Dollars)	Number	Percent	Percent	Percent	Percent	Percent	Percent
North Dakota-Kansas (Farm-Plains)							
All income classes	1088	2.9	10.3	48.3	26.3		30.9
0-249	89	1.1	9.0	47.7	23.6		20.2
2500-2499	33	3.0	27.3	78.8	69.7		39.4
Washington-Oregon (Farm-Northwest)							
All income classes	943	77.6	39.3	31.0	66.5		9.3
250-499	63	68.3	19.0	66.1	38.1		4.8
5000-3999	46	93.5	57.8	97.8	84.8		39.3

^{1/} Consumer purchases study, U. S. Department of Agriculture in cooperation with the Work Projects Administration.

^{2/} U. S. Department of Agriculture, Misc. Pub. No. 457 Table 36, pp. 134-135.

^{3/} U. S. Department of Agriculture, Misc. Pub. No. 399 Table 29, pp. 100-101.

^{4/} U. S. Department of Agriculture, Misc. Pub. No. 399 Table 31, pp. 114-115.

Table 2. Percentage of families owning specified articles of household equipment, and average amounts spent per article, by income class and analysis unit, 1935-36. ^{1/}

Analysis unit and family income class	Household Furnishings									
	Motor driven washing machines	Mechanical refrigerator	Electric sewing machine	Vacuum cleaner	Ironing machine	Number	%	Ave. Amt.	%	Ave. Amt.
(Dollars)	2/	3/	4/	5/	6/	7/	8/	9/	10/	11/
North Dakota-Landings (Farms-Plains)	:	:	:	:	:	:	:	:	:	:
All income classes	1070	5/	65.6	\$ 74.42	5.0	\$184.44	1.2	\$ 22.50	5.6	\$ 54.50
0-249	88	2/	57.9	71.00	4.5	---	1.1	---	2.3	---
2000-2499	33	175.7	99.50	9.1	90.00	3.0	---	---	18.2	---
Washington-Oregon (Farms-Northwest)	:	:	:	:	:	:	:	:	:	:
All income classes	928	6/	166.5	63.26	12.8	152.24	15.2	32.33	24.2	49.46
250-499	63	144.6	98.50	3.1	---	---	1.6	---	11.1	---
2000-2999	42	171.7	72.00	14.2	205.00	17.4	22.50	19.50	1.6	---
Consumer purchases study, U. S. Department of Agriculture in cooperation with the Work Projects Administration.										

2/ U. S. Department of Agriculture, Misc. Pub. No. 436 Table 15, pp. 56-57.

3/ U. S. Department of Agriculture, Misc. Pub. No. 436 Table 21, pp. 92-95.

4/ This figure is sometimes 1088, in the published tables.

5/ This figure is sometimes 98, in the published tables.

6/ This figure is sometimes 948, in the published tables.

Table 3. Percentage of families having expenditures for specified services and average amounts spent, by income and analysis unit, 1935-36. 1

[illegible]

1/ Consumer purchases study, U. S. Department of Agriculture in cooperation with the Work Projects Administration.

U. S. Department of Agriculture, Misc. Pub. No. 499, July 33, 1933, p. 10, 10, 10.

U. S. Department of Agriculture, Misc. Pub. No. 455 Table 2. 4743

U.S. Department of Agriculture, Misc. Pub. No. 457, Table 60, pp. 16-18, 1971-72.

Table 4A. Percentage of families having expenditures, and average amounts expended, for specified isolation reducing agents, by income and analysis unit, 1935-36. 1/

Analysis unit and family income class (Dollars)	Families: Number	Any		Reading Matter		Magazines		Radio		Telephone	
		%	Ave. amt.	%	Ave. amt.	%	Ave. amt.	%	Ave. amt.	%	Ave. amt.
North Dakota-Landless (Farms-Plains)											
All income classes	1088	96.8	\$ 7.50	92.6	79.7	60.7	68.2	76.0	\$ 28.61	40.9	\$ 6.50
0-249	89	93.3	6.88	91.0	77.5	59.6	66.3	59.6	35.71	34.8	4.53
250-2499	33	100.0	11.30	97.0	93.9	75.8	72.7	78.8	48.00	75.8	12.52
Washington-Oregon (Farms-Northeast)											
All income classes	948	98.4	10.14	97.7	95.9	50.3	71.9	83.6	47.79	47.7	7.25
250-499	63	96.8	6.17	96.8	90.5	34.9	46.0	68.3	30.00	14.3	2.00
500-3999	46	97.8	13.00	95.7	91.7	54.7	80.2	95.7	42.33	76.1	11.68

1/ Consumer purchases study, U. S. Department of Agriculture in cooperation with the Work Projects Administration.

2/ U. S. Department of Agriculture, Misc. Pub. No. 456 Table 22, pp. 118-119.

3/ U. S. Department of Agriculture, Misc. Pub. No. 455 Table 24, pp. 133-134.

4/ Ibid. These averages, unlike the others in this table, are based on families purchasing, rather than all families.

5/ U. S. Department of Agriculture, Misc. Pub. No. 457 Table 41, pp. 154-155.

Table 4B. Percentage of families owning automobiles and purchasing new automobiles, and average automobile expenditures for purchase and operation, by income and analysis unit, 1935-36. 1/

Analysis unit and family income class (Dollars)	Automobiles 2/			
	Families	Families owning; New when bought	Percent	Expenditures (Dollars)
	Number	Percent	Percent	
North Dakota-Kansas (Farms-Flatine)				
All income classes	1088	96.0	46.1	\$111.00
0-249	89	96.6	40.4	95.00
2000-2499	33	100.0	84.8	273.00
Washington-Oregon (Farms-Northwest)				
All income classes	948	91.4	41.6	124.00
250-499	63	76.2	20.6	44.00
2000-3999	46	93.5	60.9	228.00

1/ Consumer purchases study, U. S. Department of Agriculture in cooperation with the Work Projects Administration.

2/ U. S. Department of Agriculture, Misc. Pub. No. 415 Table 39, pp. 108-109.

3/ U. S. Department of Agriculture, Misc. Pub. No. 415 Table 40, pp. 120-121.

Table 5. Percentage of families having expenditures for social participation, and average amount spent for these items, by income and analysis unit, 1935-36. 1/

Analysis unit and family income class (Dollars)	Religious 2/				Educational 2/				Recreational 4/				Philanthropic and Civic 5/			
	Number	%	Ave.	Am't.	Families	Missions	Schools	All	Motion	Pictures	Club	Dances	Community	Chest, Welfare	and Civic	Agencies
North Dakota-Kansas (Farms-Plains)																
All income classes	1088	77.2	\$18.72	46.1	\$16.80	90.5	\$27.10	61.4	4.57	28.0	91.31	26.0	\$	0.83		
0-249	89	62.9	14.38	38.2	12.78	84.4	16.32	55.1	2.88	37.1	1.90	23.6		.63		
2000-2499	33	87.9	37.85	69.7	49.91	91.3	65.94	66.7	7.85	39.4	1.48	26.4		1.94		
Washington-Oregon (Farms-Northwest)																
All income classes	948	57.9	11.24	43.9	15.37	93.5	31.50	73.5	7.26	36.4	2.67	23.9		1.54		
250-499	63	34.2	5.66	27.0	4.65	66.7	7.24	39.7	1.69	17.5	1.11	15.9		.60		
2000-3999	46	69.6	20.94	56.5	41.96	100.0	37.80	84.8	10.42	28.7	4.33	34.8		1.39		

1/ Consumer purchases study, U. S. Department of Agriculture in cooperation with the Work Projects Administration.

2/ U. S. Department of Agriculture, Misc. Pub. No. 455 Table 14, pp. 71-72.

3/ U. S. Department of Agriculture, Misc. Pub. No. 456 Table 18, p. 82.

4/ U. S. Department of Agriculture, Misc. Pub. No. 456 Table 24, 25 & 26, pp. 133-145.

5/ U. S. Department of Agriculture, Misc. Pub. No. 455 Table 14, pp. 71-72.

Table 6. Percentage of Households canning food and percentage of families reporting expenditures for specified items and the average amount spent by income and analysis unit, 1935-36. ^{1/}

Analysis unit and family income class (Dollars)	Number	Security			Families: deposit boxes ^{2/}	Life insurance	Bank charges	Canning	Food ^{4/}	Tobacco ^{5/}
		%	Ave. Amt.	%						
North Dakota-Kansas (Farms-Plains)										
All income classes	1068	38.2	\$ 29.70	27.1	\$ 0.87			95.0		\$ 11.92
0-249	89	28.1	18.30	25.8	.67			97.8		10.12
200-2499	33	48.2	60.70	43.5	2.12			93.9		12.18
Washington-Oregon (Farms-Northwest)										
All income classes	943	38.6	30.96	31.8	1.06			92.9		12.34
250-499	63	22.2	12.56	9.5	.32			100.0		6.24
500-999	46	71.7	100.35	65.2	3.44			100.0		10.70

^{1/} Consumer purchases study, U. S. Department of Agriculture in cooperation with the Work Projects Administration.

^{2/} U. S. Department of Agriculture, Misc. Pub. No. 464 Table 28, pp. 124-125.

^{3/} U. S. Department of Agriculture, Misc. Pub. No. 455 Table 16, p. 92.

^{4/} U. S. Department of Agriculture, Misc. Pub. No. 405 Table 57, pp. 315-319.

^{5/} U. S. Department of Agriculture, Misc. Pub. No. 456 Table 33, pp. 186-187.

